

RECEIVED
CENTRAL FAX CENTER
JAN 30 2007

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the applications:

Listing of Claims:

1. (Cancelled)
2. (Currently Amended) An electromagnetic radiation absorber for absorbing radiation in the wavelength range λ_{\min} to λ_{\max} comprising a conductor layer in contact with a dielectric layer wherein the conductor layer ~~carries a plurality of apertures~~ includes a plurality of slits of sub-wavelength dimension in a grating arrangement, and wherein the thickness of the absorber is less than $\lambda_{\min}/4n$, where n is the refractive index of the dielectric, and wherein the absorber is flexible.
3. (Currently amended) An e/m radiation absorber as claimed in claim 2 wherein the thickness of the ~~material~~ absorber is less than $\lambda_{\min}/10$.
4. (Cancelled).
5. (Currently amended) An ~~e/m~~ electromagnetic radiation absorber as claimed in claim 4 wherein the slit structures are periodic in nature.
6. (Currently amended) An ~~e/m~~ electromagnetic radiation absorber as claimed in claim 4 wherein the slit structures are curved.
7. (Currently amended) An ~~e/m~~ electromagnetic radiation absorber as claimed in claim 4 wherein the slit structures comprise a series of non-parallel slits.
8. (Currently amended) An ~~e/m~~ electromagnetic radiation absorber as claimed in claim 4 wherein the slit structures comprise a parallel slit arrangement.
9. (Currently amended) An ~~e/m~~ electromagnetic radiation absorber as claimed in claim 8 wherein the wavelength λ of radiation absorbed is determined by

$$\lambda \approx 2nG/N$$

where λ is the wavelength in the range λ_{\min} to λ_{\max} where maximum absorption occurs, n is the

refractive index of the dielectric, G is the spacing of the slits and N is an integer greater than or equal to 1.

10. (Currently amended) An ~~e/m~~ electromagnetic radiation absorber as claimed in claim 4 wherein the slit structure comprises two orthogonal sets of parallel slits.

11. (Currently amended) An ~~e/m~~ electromagnetic radiation absorber as claimed in any of claim 4 wherein the slit structures comprise three sets of parallel slits at 60 degree azimuthal separation.

12. (Currently amended) An ~~e/m~~ electromagnetic radiation absorber as claimed in any of claim 4 wherein the slit width is less than 400 microns.

13. (Currently amended) An ~~e/m~~ electromagnetic radiation absorber as claimed in claim 12 wherein the slit width is less than 50 microns.

14. (Currently amended) An ~~e/m~~ electromagnetic radiation absorber as claimed claim 2 wherein the ~~refractive index of the dielectric can be actively varied~~ dielectric comprises a material having an actively variable refractive index.

15. (Currently amended) An adhesive tape comprising an ~~e/m~~ electromagnetic radiation absorber according to claim 2.

16-17 (Cancelled)

18. (Currently amended) A heating element for use in a microwave oven comprising an ~~e/m~~ electromagnetic absorber as claimed in claim 2.

19. (Cancelled)

20. (Currently amended) An ~~e/m~~ electromagnetic radiation absorber as claimed in claim 2 wherein the thickness of the ~~material absorber~~ is less than $\lambda_{\min}/100$.

21. (Cancelled)

22. (Currently amended) An ~~e/m~~ electromagnetic radiation absorber as claimed in claim 2 ~~claim 20~~ wherein the absorber is backed with an adhesive material.

23. (Currently amended) An ~~e/m~~ electromagnetic radiation absorber as claimed in claim 2 wherein the dielectric layer is sandwiched between the conductor layer and a second conductor layer.

24-25 (Cancelled)

26. (New) An electromagnetic radiation absorber for absorbing radiation in the wavelength range λ_{\min} to λ_{\max} comprising a conductor layer in contact with a dielectric layer wherein the conductor layer includes a plurality of slits of sub-wavelength dimension, wherein the thickness of the absorber is less than $\lambda_{\min}/100$.

27. (New) An electromagnetic radiation absorber according to Claim 26, wherein the absorber is flexible.

28. (New) An electromagnetic radiation absorber according to Claim 26, wherein the plurality of slits are arranged in a bigrating.

29. (New) An electromagnetic radiation absorber according to Claim 26, wherein the dielectric comprises a material having an actively variable refractive index.

30. (New) An electromagnetic radiation absorber according to Claim 26, comprising a further conductor layer arranged such that the dielectric is sandwiched between the conductor layer and the further conductor layer.